

L10 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:446919 CAPLUS

DOCUMENT NUMBER: 141:7630

TITLE: **Process for the epoxidation of****olefins with hydrogen**
peroxide in the presence of titanium zeolites

INVENTOR(S): Haas, Thomas; Hofen, Willi; Woell, Wolfgang; Brasse, Claudia; Stochniol, Guido; Ullrich, Norbert

PATENT ASSIGNEE(S): Degussa AG, Germany; Uhde GmbH

SOURCE: Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
EP 1424331	A1	20040602	EP 2002-26241	20021126	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK	WO 2004048354	A1	20040610	WO 2003-EP13213	20031125
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GE, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, LZ, LC, LR, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NZ, NI, NO, N2, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, T2, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RW, BW, GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG	WO 2002014299	A1	20020221	WO 2001-EP9076	20010806
PRIORITY APPLN. INFO.: EP 2002-26241	A	20021126	IT 2000MT1884	B1	20030227

AB The present invention refers to a process for the catalytic epoxidation of olefins in the presence of a titanium containing zeolite catalyst and a polar solvent whereby the deactivation of the catalyst upon recycling of the solvent has been considerably reduced. In the process one or more nitrogen containing compds. are introduced at some stage, a solvent stream is recovered, treated to contain less than 50 wppm nitrogen in the form of organic nitrogen compds. and at least a part of it is recycled to the epoxidn. step. The invention is also directed towards a process for the catalytic epoxidn. of propene which integrates the inventive treatment and recycle of the solvent into the workup of the reaction mixture

L10 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:142694 CAPLUS

DOCUMENT NUMBER: 136:184272

TITLE: **Integrated process for the****preparation of olefin oxides**
Patrapinto, Giuseppe; Forlin, Anna; De Alberti,**Giordano, D'Aloisio, Rino; Tegon, Paolo**

PATENT ASSIGNEE(S): Enichem S.p.A., Italy

SOURCE: PCT Int. Appl., 61 pp.

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 2002014299	A1	20020221	WO 2001-EP9076	20010806	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, LZ, LC, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, SY, T2, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CT, CM, GA, GN, QO, GW, ML, MR, NE, SN, TD, TG	IT 2000MT1884	A1	20020221	IT 2000-MI1884	20000811
IT 2000MT1884	B1	20030227	IT 2000-MI1884	A	20000811
AU 2002013848	A5	20020225	AU 2002-13848	20010806	
EP 1207435	A1	20040225	EP 2001-982202	20010806	
EP 1207435	B1	20040225			
R: BB, DE, ES, FR, GR, NL, SI, LT, LV, RO, MK, AD, JP 2004050627	T2	20040318	JP 2002-519441	20010806	
US 2003-343832	A1	20040318	US 2003-343832	20030925	
PRIORITY APPLN. INFO.: US 2004054200			IT 2000-MI1884	A	20000811

WO 2001-EP9076 W 20010806

AB The present invention relates to an integrated process for the preparation in continuous of epoxides which comprises: (a) preparing an alc. or hydro-alc. solution of hydrogen peroxide in a concentration of over 3%, using a gaseous stream containing hydrogen, oxygen and an inert gas, in the presence of a bimetallic catalyst based on palladium and platinum as active components; (b) putting the alc. or hydro-alc. solution of hydrogen peroxide obtained in step (a) in contact with an olefin and a buffering agent, in the presence of an epoxidn. catalyst suspended in the reaction solvent, in order to obtain a reaction mixture containing the epoxide corresponding to the olefin, water and alc. solvent; (c) treating the alc. stream leaving step (b), after separation of the epoxide, in order to eliminate the nitrogenated compds. present; (d) feeding the alc. solvent obtained in (c) to step (a). The process may comprise a further step (e), wherein the raw

L10 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
hydro-alc. mixt. of the flash column bottom, is used, when necessary, for dlyng. the alc. or hydro-alc. soln. of hydrogen peroxide obtained in step (a) to the value required by the epoxidn. plant. The process operates under high safety conditions and with a high overall efficiency, in terms of productivity and selectivity.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:98455 CAPLUS

DOCUMENT NUMBER: 134:147992

TITLE: **Production of epoxides by**
epoxidation of olefins by
regeneration of catalyst

INVENTOR(S): Ponceau, Marianne; Muller-Markgraf, Wolfgang

PATENT ASSIGNEE(S): Linde Aktiengesellschaft, Germany

SOURCE: Eur. Pat. Appl., 9 pp.

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1074547	A1	20010207	EP 1999-115532	19990805
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: EP 1074547 1999-115532 19990805

AB In the liquid-phase epoxidn. of ethylene and propylene to their resp. oxides over a catalyst in the presence of H2O2 in a reactor, the catalyst is regenerated outside the reactor with aqueous H2O2 in the absence of olefin, while using MeOH as solvent in both processes. Examples were given for a Ti/silicate catalyst in the production of propylene oxide; product yield was around 80% through 7 catalyst recycles.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 18:37:43 ON 13 NOV 2004)

FILE 'CAPLUS' ENTERED AT 18:38:01 ON 13 NOV 2004

L1	161833 S OLEFIN?
L2	97137 S OLEFINS
L3	0 S L1 AND EPOSID?
L4	6072 S L1 AND EPOXID?
L5	2926 S L4 AND (PROCESS OR MAKE OR MADE OR SYNTHES? OR PREPAR?)
L6	1452 S L5 AND EPOXIDATION
L7	1179 S L6 AND CATALY?
L8	265 S L7 AND HYDROGEN PEROXIDE
L9	25 S L8 AND TITANIUM SILICATE
L10	3 S L9 AND NITROGEN?

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	40.73	40.94
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.10	-2.10

STN INTERNATIONAL LOGOFF AT 18:43:17 ON 13 NOV 2004